

December 13, 2002

**RE: Beta Steel Corporation 127-16763-00036**

TO: Interested Parties / Applicant

FROM: Paul Dubenetzky  
Chief, Permits Branch  
Office of Air Quality

## Notice of Decision - Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We make Indiana a cleaner, healthier place to live.*

Frank O'Bannon  
Governor

Lori F. Kaplan  
Commissioner

100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
(317) 232-8603  
(800) 451-6027  
[www.in.gov/idem](http://www.in.gov/idem)

December 13, 2002

Mr. Toli Fliakos  
Beta Steel Corporation  
6600 US Highway 12  
Portage, Indiana 46368

Re: A-127-16763  
Amendment to CP-127-2326,  
Plt ID 127-00036

Dear Mr. Fliakos:

Beta Steel Corporation was issued a construction permit on February 24, 1992 relating to the operation of the steel manufacturing facility. A request for the installation of the inserts in the Reheat furnace was received on November 11, 2002. The Office of Air Quality (OAQ) has reviewed this request, as detailed in the Technical Support Document, and has amended Operation Conditions of CP-127-2326. Pursuant to IC13-15-7-1, this permit is hereby amended as follows:

19. That pursuant to the New Source Performance Standards (NSPS, 40 CFR 60.7), the source owner/operator is hereby advised of the requirements to report the following at the appropriate times:

..... [no changes to the text in this part].....

That a log of information necessary to document compliance with BACT emission limitations shall be maintained:

- e. The throughput, natural gas usage, CO, and opacity emission records for the meltshop.
- f. The throughput, natural gas usage, efficiency of the SCR based upon ammonia injection consumption, and the record of damper position by an electronic position recorder for both of the strip mill reheat furnace.
- g. The inspection and maintenance of emission control equipment as set forth in the operation and maintenance program, Attachment A.
- h. all transaction involved with implementation of the Scrap Management Program.

These records shall be kept for five (5) year period and made available upon request to the Office of Air Quality. A quarterly summary shall be submitted to:

Office of Enforcement  
Indiana Department of Environmental Management  
100 N. Senate Ave  
P.O. Box 6015  
Indianapolis, IN 46202

Compliance Branch and Permits Branch  
Office of Air Quality  
Indiana Department of Environmental Management  
100 N.Senate Ave  
P.O.Box 6015  
Indianapolis, IN 46202

Within 30 days after the end of the quarter being reported in the format attached.

The application and enforcement of these standards are delegated to the IDEM, OAQ.  
The requirements of 40 CFR 60 are also federally enforceable.

All other conditions of the permit CP 127-2326-00036 shall remain unchanged and in effect. Please attach this amendment with the original permit.

Sincerely,

Original Signed by Paul Dubenetzky  
Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

GS

cc: File - Porter County  
U.S. EPA, Region V  
Porter County Health Department  
Northwest Regional Office  
Air Compliance Section Inspector - Rick Massoels  
Compliance Data Section - Karen Nowak  
Permit Tracking - Sara Cloe  
Technical Support and Modeling - Michele Boner

## **Indiana Department of Environmental Management Office of Air Quality**

### **Technical Support Document (TSD) for an Amendment to the Construction Permit**

#### **Source Description and Amendment Request**

Source Name:	Beta Steel Corporation
Source Location:	6600 US Highway 12, Portage, Indiana 46368
County:	Porter
Construction Permit:	127-2326-00036
Amendment No.:	A-127-16763-00036
SIC Code:	3312
Permit Reviewer:	Gurinder Saini

The Office of Air Quality (OAQ) received a request from Beta Steel Corporation on November 11, 2002. This request was for the installation of the inserts in the Reheat furnace.

#### **History**

On November 11, 2002, Beta Steel submitted an application to the OAQ requesting to install inserts into the eight (8) bottom zone burners in the reheat furnace at the existing plant. Beta Steel was issued a Construction Permit 127-2326-00036 on February 24, 1992.

#### **Description of Change**

The Permittee stated that the purpose of these inserts is solely to increase the flame controllability. The Permittee does not expect any effect on the emissions from the reheat furnace because of this change.

In response to the additional information request by the IDEM, OAQ, the Permittee on December 10, 2002 provided a detailed description of the change. The Permittee stated that they are experiencing problems with quality of steel due to burners in the bottom zone of the reheat furnace as un-homogenized furnace environment. The heating in the top zone and bottom zone is uneven in the reheat furnace causing 'turn downs'. The phenomenon occurs when the temperature of the top part of the slab is much hotter than the bottom part. This causes the steel on the top surface of the slab to flow more freely causing a turn down, which causes major quality problems with the shapes and gauges causing a lot of material and energy to be wasted.

The cause of the uneven temperature in the heating zone is the burners in the bottom zone project flame unevenly that has no coherent structure and is responsible for poor flame response and uneven heating of the slab on the bottom surface. This causes in addition to product quality problems a potential damage to the hearth area of the furnace and increases scale accumulation.

To improve flame response the burners inserts facilitate tightening the existing port hole openings of the existing burners of the bottom zone. This allows a more manageable, coherent flame response that will reduce uneven bottom heating zone by projecting the flame further into the furnace.

The contractor for the project has recommended to install a cone like insert made of refractory materials that will redirect the flame and eliminate the uneven heating of the slabs and quality problems faced at this time. The Permittee has further stated that they do not expect any increase in emissions because of this change and also no additional gas usage is expected. According to the Permittee and the contractor the purpose of change is not to cause any increase in production

of steel or emissions but is only intended to improve the quality of the product.

The Permittee further evaluated this change as follows:

Nature:

Even though this change has never been performed at this Source in the past, the contractor for the Permittee has stated that it is not a unique repair and is performed regularly by them in this type of furnaces in the industry.

Extent:

The change is only the addition of conical refractory to the burners in the bottom zone and does not cause any emissions by itself. The Permittee is proposing to make this change during the regularly scheduled outage during the month of December 2002, which is expected to last several days. There will be no change in the burners capacities or fuel usage.

Purpose:

The change is intended to minimize the quality problems with the shapes and gauges of the final product. This may have additional benefit of minimizing the damage to the hearth area of the furnace but that is just the ancillary benefit. The purpose of the change is to improve the quality of the product.

Cost:

The cost of the change is only 1/5<sup>th</sup> the cost of replacing the burners themselves. This cost is considered part of routine repair of the reheat furnace and is not classified as a capital project. Replacement of burners themselves would constitute a capital project.

### **Justification for the Amendment**

The IDEM, OAQ and the Permittee discussed in detail the above scenario with U.S. EPA Region 5 office. Region 5 concurred with the IDEM, OAQ and the Permittee that this change can be considered routine repair and therefore should not cause any changes in the net emissions. The Region 5 advised that the Permittee be required to monitor and maintain records to ensure that no change in emissions are caused due to this project. Therefore, pursuant to IC13-15-7-1, this permit CP 127-2326-00036 is hereby amended to incorporate record keeping requirements for a period of five years.

### **Recommendation**

The staff recommends to the Commissioner that the amendment to the construction permit be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on November 11, 2002). Additional information was received on December 10, 2002.

### **Permit Changes**

The construction permit 127-2326-00036 is amended as follows to include record keeping requirements for the reheat furnace operations (bold-face characters represent language that has been added to the condition and strikeout characters represent language that has been removed from the condition):

19. That pursuant to the New Source Performance Standards (NSPS, 40 CFR 60.7), the source owner/operator is hereby advised of the requirements to report the following at the

appropriate times:

..... [no changes to the text in this part].....

That a log of information necessary to document compliance with BACT emission limitations shall be maintained:

- e. The throughput, natural gas usage, CO, and opacity emission records for the meltshop.
- f. The throughput, natural gas usage, efficiency of the SCR based upon ammonia injection consumption, and the record of damper position by an electronic position recorder for both of the strip mill reheat furnace.
- g. The inspection and maintenance of emission control equipment as set forth in the operation and maintenance program, Attachment A.
- h. all transaction involved with implementation of the Scrap Management Program.

These records shall be kept for ~~at least the past 24 month~~ **five (5) year** period and made available upon request to the Office of Air ~~Management~~ **Quality**. A quarterly summary shall be submitted to:

~~Enforcement Section  
Indiana Department of Environmental Management  
Office of Air Management  
105 South Meridian Street  
Indianapolis, IN 46225~~

**Office of Enforcement  
Indiana Department of Environmental Management  
100 N.Senate Ave  
P.O.Box 6015  
Indianapolis, IN 46202**

**Compliance Branch and Permits Branch  
Office of Air Quality  
Indiana Department of Environmental Management  
100 N.Senate Ave  
P.O.Box 6015  
Indianapolis, IN 46202**

Within 30 days after the end of the quarter being reported in the format attached.

The application and enforcement of these standards are delegated to the IDEM-~~OAM~~ **OAQ**. The requirements of 40 CFR 60 are also federally enforceable.

## Conclusion

The reheat operation will be subject to the conditions of the attached proposed **Amendment Letter No. A-127-16763-00036**.